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CONSUMER BEHAVIOR: ONLINE GROCERY SHOPPING IN PORTUGAL

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Consumer Behavior: Online Grocery Shopping in Portugal

Abstract

Living in the digital era, activities that have for centuries acted one way, have now changed and entered the online world, and online grocery shopping is one of them. It is a worldwide phenomenon and is already a significant part of people's lifestyle in several countries however, in Portugal, it is still in expansion and improvement. Based on the Theory of Planned Behavior, this study allowed to estimate how the perceived risk and shopping orientation counterbalances the convenience offered to consumers. Furthermore, it validated how usability and access to focused promotions can help speed up this adaptation in Portugal.

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1. Introduction

Internet shopping appeared in the mid 90s, allowing consumers to buy at the distance of a click; they are now able to buy anything, at anytime and have it sent from anywhere worldwide. According to the report “Internet vs. store based shopping” on Passport in 2014, the US is the biggest e-commerce retail market worldwide, followed by China who is almost catching up. Furthermore, although online grocery shopping within those countries is not the greatest segment, it represents a significant percentage of consumers’ online purchases. Amazon is the largest brand of Internet retailing worldwide, and with the creation of its own home deliver of groceries, the brand is now able to give customers a fast and high quality deliver of a wide range of products. On the other hand, according to the “Internet Retailing in Portugal” report also on Passport in 2014, internet shopping in Portugal faced a significant growth due to the decrease of consumers’ worries concerning the security of online transactions, being Apple the most purchased brand online. Likewise, online grocery shopping is growing at a significant rate, as consumers are looking for convenient shopping and want to control impulse purchases, mainly due to the actual financial crisis present in the country; Sonae is the leader of this market through Continente Online.

This study aims to understand how convenience, relative advantage, perceived risk and shopping orientation are affecting Portuguese consumers’ intention to perform online grocery shopping. Extensive global research was made in order to build several hypotheses that were after verified through an SPSS analysis of several surveys conducted. Lastly, the results are discussed and the limitations and recommendations for future research were addressed.

2. Literature Review

This paper intends to analyze the psychological factors that make consumers intend to shop for groceries online. As the intention to shop for groceries online is our dependent variable, the factors selected are the independent variables. From a wide range of possibilities, four factors were selected to enter this study: perceived risk, shopping convenience, relative advantage, and store orientation. According to several authors (Hansen 2005; Hansen 2006; Khan and Rizvi 2012), these factors influence consumers' intention to shop for groceries online, some in a positive and other in a negative way.

2.1 Intention to shop groceries online

According to Fishbein and Ajzen (1975), a person's belief regarding an object will automatically and simultaneously lead to a formation of an attitude regarding that object. Moreover, a person's attitude towards something is defined by his/her "general feeling of favorableness or un-favorableness toward some stimulus object". Knowing that exists a strong relation between attitudes and intentions, the more favorable is the attitude towards some object, the more a person will intend to perform a certain behavior. Therefore, a person's behavior is determined by his intention to execute that same behavior.

Ajzen (1985) posits that belief, attitude, intention and behavior are the four main components of the theory of planned behavior. They have a consequent and causal connection, as beliefs generate attitudes, which will consequently lead to intention, to finally perform a behavior. Although behavior is determined by intention, not all intended actions are actually accomplished; there are several factors (internal and external) that may change the intention of performing a certain behavior.

Accordingly, Hansen et al. (2004) concluded in a study that the theory of planned behavior is able to explain a high percentage of the variation in future online grocery buying intention. In the study, the results showed that the most important predictor of online grocery was behavioral intention, supporting the theory of planned behavior. Further, respondents are not simply assessing their intention to purchase groceries, but also their intention to buy them through another shopping channel such as the Internet.

Another study regarding Internet shopping was done by George (2004), in which, although intentions were not taken into account, positive attitudes were related with actual purchasing behavior of buying online. The results also showed that perceived behavioral control also influenced online purchasing behavior.

Therefore, taking into account that the four variables presented further will influence consumers' intention to buy groceries online, an hypothesis can be generated and further be verified:

H1: Perceived risk, convenience, relative advantage and shopping orientation influence consumers' intentions to buy groceries online

2.2 Perceived Risk

One major difference between online grocery shopping and in-store shopping is the higher perceived risk when shopping online (Salisbury et al. 2001). Salisbury et al. (2001) and Hansen (2006) proved into two different studies that if customers perceive the risk of buying groceries online they would be less willing to purchase, and vice-versa. Moreover, Hansen (2006) concluded that, for inexperienced online shoppers, perceived risk acts like a barrier for future online purchases.

Perceived risk can include issues regarding online security systems such as credit card fraud and personal data security, and also issues with delivery like lower quality of

products delivered than expected, late distribution to consumers' houses and also difficulties on returning products.

According to Barker et al. (2008), credit card fraud in general has been a setback for several years. Since consumers can easily shop on the Internet with a certain level of anonymity and without face-to-face interaction, the World Wide Web is an even better place for this act, having no boundaries. Ramus and Nielsen (2005) infer that customers express distrust in the security payment systems when they are purchasing online, however Hansen (2005) states that since customers are now more used to shop online, they are relying a bit more on the payment and security systems.

Regarding personal data, consumers are afraid that their information is used for more and different purposes than it is supposed to. Some of them avoid online shopping when there is the need to give personal information, whilst others create fake email accounts to go through the purchase (Elms 2007). The previous attitude that customers may have towards a brand, also influences their future online purchases, and at the same time, Kau et al. (2003) found that customers prefer to shop at well-known brands' websites or affiliates with previous online purchasing experiences.

Considering the delivery process required in online shopping, late deliveries and poor quality of products are two key issues. Although consumers save time on trips from home to the supermarket and vice-versa (Ramus and Nielsen 2005; Huang and Oppewal 2006; Morganosky and Cude 2009), when they order online, there is the need to schedule a time and date for the delivery, and guarantee that is someone at home who will receive the products; if the delivery is late, the consumer will be dissatisfied and may no longer want to purchase online (Jiang et al. 2013). Moreover, if the customer orders fresh products, such as fruits and vegetables, there is a risk of them getting home

not as fresh as they would be if he bought them in-store himself, as it takes longer to be delivered (Ramus and Nielsen 2005).

Furthermore, the quality of the deliver is also a concern of customers when purchasing groceries online (Monzuwé et al. 2004; Ramus and Nielsen 2005; Hand et al. 2009; Chu et al. 2010). In first place, customers worry about the quality of the products delivered because employees are the ones that select the products, and so customers do not have the possibility to see, smell and touch them in order to make a choice (Ramus and Nielsen 2005). Furthermore, the packaging and transport of the products, mainly the more fragile ones, is also critical for consumers when purchasing online (Ramus and Nielsen 2005; Jiang et al. 2013).

Finally, there is also a concern regarding the return of products purchased online. Some consumers would not buy groceries online if they think that the returning or exchanging process of products will be complex (Ramus and Nielsen 2005; Hansen 2006; Jiang et al. 2013); thus, they prefer to pay more and go to a physical store so they can avoid this possible inconvenient situation.

Thus, in order to understand in what degree does perceived risk of online shopping influences consumers' intention to buy online rather than in store, the next hypothesis was formulated:

H2: The perceived risk of online shopping will negatively influence consumers' intention to buy groceries online.

2.3 Shopping convenience

Jiang et al. (2013) states that convenience is the key determinant of success within online shopping. According to several researches (Anckar et al. 2002; Monzuwé et al. 2004; Ramus and Nielsen 2005; Michael 2006; Morganosky and Cude 2009; Chu et al.

2010; Jiang et al. 2013), having the possibility to shop anywhere, at anytime is the main reason that leads consumers to shop online; Jiang et al. (2013) defines it as *access convenience*, because it allows consumers to be flexible regarding time and place for making their online purchases. This way, consumers do not have to leave the house, drive through the supermarket during rush hours, or to carry their products, having their groceries delivered to the doorstep at the distance of a click (Ramus and Nielsen 2005). It is not the shopping itself that is more efficient, but the time and energy saved during the trips from house to supermarket, and vice-versa, that made customers to prefer online to in-store buying (Ramus and Nielsen 2005; Huang and Oppewal 2006; Michael 2006; Morganosky and Cude 2009).

However, one constraint that customers face when they start to shop online is the learning process of shopping in a certain webpage (Tanskanen et al. 2002). The web design needs to be ease and logic to use, so customers will not drop the purchasing process (Chu et al. 2010), otherwise they would prefer to shop in-store. Finally, Chiang and Dholakia (2003) concluded that convenience is one of the factors that influences consumers' intention to shop online, knowing that when consumers perceive in-store shopping as inconvenient, they are more likely to shop online.

Therefore, to understand in what degree does online shopping convenience influences consumers' intention to buy online rather than in store, the next hypothesis was formulated:

H3: The convenience of online grocery shopping will positively influence consumers' intention to buy groceries online.

2.4 Relative Advantage

Cho (2011) states that the availability of product information and the ability to compare products are key influencers in consumers' attitudes and behaviors. Therefore, the Internet allows customers to easily compare prices and product characteristics, and check the availability of each product than when purchasing in-store, rather than purchasing and looking for products in-store (Monsuwé et al. 2004; Ramus and Nielsen 2005; Michael 2006; Chu et al. 2010; Jiang et al. 2013). Additionally, consumers are becoming more sensitive to online shopping when this feature is not provided within a certain website (Jiang et al. 2013). Hence, there is a relationship between easier comparison of products and price and consumers' intention to shop groceries online (Khan and Rizvi 2012).

Also, some consumers have a constant need to vary their choices regarding products, brands, stores, etc. and also need to find products that are difficult to get within their geographical area (Michael 2006); the Internet allows them to easily perform it. This type of consumer is called variety seeker, and he/she has a high purchase frequency, which is perceived as a significant consumer type for the online shopping market (Rohm and Swaminathan 2004).

According to the report on grocery retailers in Portugal on Passport, as a financial crisis is actually present, consumers want to avoid temptation and impulsive buying. In this situation, consumers prefer online shopping rather than in store since they feel they have more control on their purchases when they are doing them online (Tanskanen et al. 2002). This happens because it is known that store environment, such as the atmosphere, décor, creative merchandising, etc., generates non-planned purchases and also impulsive buying and, knowing that the Internet do not contain those elements, it is

possible to induce that online shopping will lead to less impulsive purchases (Burgess 2003; Mohan et al. 2013).

However, impulsive buying is also present in the online channel. Dawson and Kim (2009) concluded that consumers who have a tendency for impulsive buying, will do it whatever the channel they are shopping through, meaning that there is little difference between impulsive buyers in-store and online.

Finally, Van der Heijden and Verhagen (2004) concluded that the shopping process is faster through the Internet than in-store. Being in such a competitive and fast-moving world, consumers want to spend the less time possible doing their tasks, and therefore, as online grocery shopping is faster than in-store, consumers would prefer the first.

Thus, in order to understand in what degree does online shopping relative advantage influences consumers' intention to buy online rather than in store, the next hypothesis was formulated:

H4: The relative advantage of online shopping will positively influence consumers' intention to buy groceries online.

2.5 Store Orientation

Going to the supermarket shopping for groceries is a unique experience, difficult to replicate by companies that decide to open an online shopping channel (Rohm and Swaminathan 2004). Some customers perceive browsing around for products as a pleasuring activity, but from those, some feel that the experience is not present when they are purchasing online, but only in-store (Ramus and Nielsen 2005).

According to Monsuwé et al. (2004), if consumers enjoy buying online, they have a higher probability of making it more regularly and also starting to adopt the Internet as a shopping medium in order to browse and engage in several actions. Therefore, there is

an urgent need to lead consumers to buy online, so companies necessity to engage into several strategies that will add value to the online shopping experience (Anckar et al. 2002). One strategy is to introduce game mechanisms to the online shopping experience, known as “gamification”. According to the study developed by Nunan (2014), it is true that game elements improve customer engagement within buying online, however it should be optional because not every customer will value it.

Although some consumers see grocery shopping as a burden, others see it as a chance to encounter new people and leave home. Moreover, for some families, going to the supermarket is a familiar activity in which everyone participates (Ramus and Nielsen 2005). However, online grocery shopping lacks social interaction as the buyer is purchasing his groceries through a computer, and for some consumers this could influence the decision between purchasing online or going to the store (Monsuwé et al. 2004; Ramus and Nielsen 2005). Companies are now trying to increase the level of social interaction online so they can draw the attention of customers who value social interaction when shopping for groceries; for example, Tesco stimulated customers to interact with each other in a social platform in order to win prizes (Nunan 2014).

Moreover, if consumers perceive the whole online shopping process as complex, they may avoid it and go to the store (Hansen 2005; Hansen 2006). Some studies (Monsuwé et al. 2004; Hansen 2005; Hansen 2006) concluded that experienced buyers perceive it as less complex than non-experienced buyers however, complexity can negatively influence both intention to shop online, being it the first time or a repeated intention.

Additionally, Lim et al. (2009) concluded that complexity of websites differs across e-business type. Grocery websites are usually the less complex, having available several features that allow consumers to make an easier purchase.

Therefore, to understand in what degree does being store-oriented influences consumers' intention to buy online rather than in store, the next hypothesis was formulated:

H5: The store-oriented trait will negatively influence consumers' intention to buy groceries online.

3. Research & Methodology

In order to verify the literature review made previously, surveys were designed and delivered for three weeks. The survey started by splitting people who have a positive intention to shop groceries online (people who have already purchased online and people who did not, but intend to do it), from those who have a negative one (people who never purchased online neither intend to).

This first question defined the dependent variable; meanwhile, the next questions were directed to the four independent variables (perceived risk, convenience, relative advantage and shopping oriented) in which a set of statements were described and respondents had to answer in accordance with five-point Likert-type scales. All the statements presented were previously referred and validated in other studies, so there was no need to pre-test the validity and reliability of the statements.

The statements from the first three variables were previously utilized by Khan and Rizvi (2012), ranging from "1 - strongly disagree" to "5 - strongly agree"; the fourth variable was previously used by Hand et al. (2009), ranging from "1 - no influence", to "5 - very strong influence". Moreover, additional questions were made in order to provide additional details regarding people's point of view of online grocery shopping, as well as demographic information about respondents.

After the survey was designed, two different channels to get answers were chosen. Firstly, taking into account that online grocery shopping is made through the Internet, the survey was posted on Facebook and sent to several email addresses; about 150 people concluded the survey and their answers were saved into an online excel sheet. Secondly, several surveys on paper were delivered to people all across Lisbon, who were asked to fulfill it by themselves; about 180 surveys were delivered back. Therefore, 330 surveys were collected, however 10 were not included in the analyses due to missing answers. Hence, 320 surveys were considered valid and used to make a statistical analysis through SPSS.

4. Results

4.1 Descriptive Analysis

64.7% of the participants were female, mostly ranging from 22 to 25 years old, with a bachelor degree, employed, with a personal monthly income from 1000€ to 1999€; additional demographic details are included in appendix.

Considering online grocery shopping, 27.2% had already purchased groceries online at least once, 32.8% had not yet purchased, however they intended to do it in a near future, and 40% never purchased neither intended to do it. Accordingly, 60% of the respondents had a positive intention towards online shopping.

Table 1 – Frequency Analysis			
Factors	Yes	Factor	Yes
Shopped once	12.6%	Buys known brands	83.7%
Shops sometimes	44.8%	Buys new brands	22.1%
Shops frequently	41.4%	Buys brands in promotion	51.2%
Fresh Products	25.3%	Others (detergents, etc.)	92.0%
Packaged Products	70.1%	Frozen Products	44.8%

From the ones who have already purchased groceries online, some questions were asked and the results are presented in Table 1. The most purchased products were packaged goods, such as rice, pasta, canned food, etc. and also other products such as detergents, hygiene products, etc. Additionally, the majority of consumers chose already known brands, and some brands that were in promotion.

By the end of the survey, respondents were asked to choose, from a list, which factors they think that could add value to online grocery shopping – the most relevant factors were “having more and larger promotions” (75.6%); “having an easier website” (63.4%) and “faster delivery” (45.3%).

4.2 Reliability Analysis

Next, in order to verify the reliability of the factors of each independent variable, the Cronbach’s Alpha reliability test was conducted, which perceives a group of items as reliable if the values achieved are between 0,7 and 0,8 (Field, 2014). From the analysis performed, Table 2 gathers all main values achieved:

Table 2 – Reliability Analysis			
Variable	Cronbach’s Alpha	Alpha on std. items	# Items
PR	0.717	0.706	5
C	0.706	0.721	3
RA	0.547	0.550	4
SO	0.702	0.710	4

The values achieved for PR, C and SO are within the recommended interval, thus the items of these three variables can be grouped together and further analysis can be performed with a good degree of certainty. On the other hand, for the variable relative advantage (RA), the value achieved was 0.547, which is not between the interval that is considered as reliable and, if one item were deleted, it would still continue to fall below

the required interval; this value showed that there was no significance within the items that generate the variable RA.

4.3 Correlation Analysis

Next, in order to understand how all variables are related, a Pearson correlation analysis was performed; Table 3 shows the results obtained.

Table 3 – Correlation Analysis						
	Shopper	Intention	PR	C	RA	SO
Shopper	1					
Intention	0.499**	1				
PR	-0.325**	-0.375**	1			
C	0.196**	0.307**	-0.175**	1		
RA	0.164**	0.247**	-0.191**	0.414**	1	
SO	-0.336**	-0.452**	0.381**	-0.224*	-0.202**	1

** Correlation is significant at the 0.01 level (2-tailed)

From the analysis, is possible to perceive that the significance of correlations between all variables (shopper, intention, PR, C, RA, SO) is significant at 1% level, two-tailed; this means that it is possible to be 99% sure that the results are accurate.

Firstly, it was intended to find how the four independent variables (PR, C, RA, SO) are related with consumers' intention to shop for groceries online. The results varied according to the signal (positive or negative) and the value of the correlations; for example, the higher a consumer is shopping oriented, the lower was his/her intention to shop groceries online.

4.4 Regression Analysis

In order to verify the validity of all the hypothesis generated (H1, H2, H3, H4, and H5), a linear regression analysis was performed. This analysis will evaluate whether the independent variables are statistically significant to influence the dependent variable; it is wanted to perceive not only if all the independent variables together can influence the dependent variable, but also if each one of them is significant and quantify its influence.

A model summary table was displayed, containing information very useful to make a full analysis. Through the standardized R^2 value, it is possible to state that the four independent variables (PR, C, RA, SO) explain 29.3% of the variation of the intention of buying groceries online; moreover, the adjusted R^2 was 28.4%.

The ANOVA table was also generated by SPSS. From the data provided, it is possible to say that this is a good model because the value of F is large and significant ($<.01$); thus, there is statistical significance between intention to buy groceries online and the four independent variables, and H1 was confirmed.

The last table, presented above, shows the values of the coefficients of the regression:

Table 4 – Coefficients			
Model	Beta	t	Sign.
1 (Constant)		4,049	0,000
PR	-0,210	-4,066	0,000
C	0,169	3,209	0,001
RA	0,072	1,365	0,173
SO	-0,319	-6,109	0,000

Each variable presents a value for the beta, which denotes the change in the dependent variable (intention), or the outcome, from a unit change in each independent variable; for example, a unit change in the variable PR will result in a decrease of 0.210 in the intention of online grocery shopping; since all beta values are different from zero, the model is good. Additionally, the t-test results show that PR, C, and SO are significant predictors of intention to shop for groceries online because their significance value is below 1%, however, relative advantage is not a good predictor for the dependent variable as its significance factor is above 1%. Based on this, it is possible to state that H2, H3 and H5 are verified, and H4 is not.

5. Discussion

Despite some other factors that were not included in this study, it is possible to verify the first hypothesis presented within this study (H1), as it was estimated that perceived risk, convenience, relative advantage and shopping orientation influence consumers' intention to buy groceries online, in accordance with several studies developed (Monswé et al. 2004; Ramus and Nielsen 2005; Hansen 2006; Huang and Oppewal 2006; Hansen 2008; Khan and Rizvi 2012).

Regarding perceived risk, some consumers still express distrust regarding the security of the online payment system, as Ramus and Nielsen (2005) state in their study; however, others do trust it, mainly the ones who have already purchased groceries online, in accordance with Hansen (2005). Additionally, some consumers are still feel insecure regarding what could happen to them when providing personal and credit card information, reinforcing the conclusions achieved by Elms (2007).

Moreover, it was also concluded that the quality of the product delivered is also a concern for consumers regarding their intention to shop for groceries online, rather than at a physical store, which is in accordance with several studies previously developed (Monswé et al. 2004; Ramus and Nielsen 2005; Hand et al. 2009; Chu et al. 2010). However, the majority of consumers who have a positive intention regarding online grocery shopping do not agree with that statement. This could be explained by the fact that, since consumers who perceive less overall risk of online purchasing will more probably purchase, it is quite normal that when they shop for groceries online, they would not be expecting a lower quality than if they went to a physical store, otherwise they would not buy online at all.

Next, it was achieved that some consumers still find return of online products as complex. Yet, consumers with a positive intention to shop for groceries online do not find it complex, meaning that return is not a barrier for their willingness to shop; on the other hand, the majority of consumers who perceive it as complex do not intend to ever shop for groceries online. These results come along with the conclusions of Ramus and Nielsen (2005), Hansen (2006), and Jiang et al. (2013).

Hence, the second hypothesis (H2) is verified as the results estimated that the overall feeling that consumers may have of perceived risk diminishes consumers' intention to shop for groceries online, acting as a barrier to further online purchases. This conclusion is in harmony with several other conclusions achieved by Salisbury et al. (2001) and Hansen (2006).

The second independent variable that was tested was convenience, which is one, or even the key, determinant of success regarding online shopping (Jiang et al. 2013). Through the results from the survey and the analysis performed by SPSS, having the possibility to shop anywhere, at anytime is positively related with intention to perform online grocery shopping, as several authors also concluded (Anckar et al. 2002; Monsuwé et al. 2004; Ramus and Nielsen 2005; Morganosky and Cude 2009; Chu et al. 2010; Jiang et al. 2013). Curiously, this sub-variable (24/7) was the one with more “strongly agree” and “agree” answers (48,1% and 44,1%, respectively, and together representing 92,2% of total respondents), not only from consumers with positive intention, but also from others with a negative one. This can be explained by the fact that the majority of consumers perceive it as a benefit of online shopping however, for some, it is not enough to make them use the online system rather than going to the physical store

because maybe, other factors, such as perceived risk or store oriented, have a higher strength to negatively influence their intention.

Similarly, a great percentage of consumers (91,3%) also perceive that online grocery shopping avoids physical effort, as Ramus and Nielsen (2005) concluded, since consumers do not need to leave the house, drive through the supermarket during rush hours, or to carry their products.

Consequently, however not in such a great percentage, consumers agree that online grocery shopping takes less time than shopping at a physical store, and it is positively related with their intention to shop for groceries online. This means that the higher consumers perceive it as time saving, the higher they will intend to shop online; these results are in accordance with the conclusions achieved by Ramus and Nielsen (2005), Huang and Oppewal (2006), and Morganosky and Cude (2009).

Hence, it was possible to conclude that convenience is positively related with consumers' intention to shop for groceries online, aligned with the conclusions of Chiang and Dholakia (2003a) and confirming H3.

The fourth independent variable examined within this study is the relative advantage that consumers may perceive of shopping online rather than in-store. Regarding easier comparison of product characteristics and price, the results showed that a significant percentage of consumers perceive the easiness of price and product comparison through the Internet, when comparing with shopping in store, being the results in accordance with previous studies (Monsuwé et al. 2004; Ramus and Nielsen 2005; Chu et al. 2010; Jiang et al. 2013). Additionally, it was also possible to address a small, but yet significant, relationship of the independent variable with intention to shop for groceries online, as Khan and Rizvi (2012) concluded. However, the relation between this

variable and being actually a shopper is not significant; one explanation for this situation may be related to the fact that the websites in which the actual online grocery shoppers do shop does not allow the comparison of products and prices, or it is just too complex for shoppers to perform it, and so they do not perceive it as an advantage.

Furthermore, the results also allowed to extract that there are few variety seekers, as Rohm & Swaminathan (2004) previously defined into their study, within the sample (26,5%), and therefore there is no significant relationship between higher variety of products and intention to shop online. This happened because a very significant percentage of consumers (37,5%) answered “neither agree or disagree”, which leads to conclude that they do not have any formed opinion regarding this subject. One explanation for this fact is that groceries do not vary much from place to place, because when people go to supermarkets they usually buy almost the same everytime, and if they want to buy something more difficult to find, they will try to look into specific stores and not into the supermarket’s range of products.

Moreover, the results showed a positive relationship between intention to shop groceries online and the ability to reduce the number of impulse purchases, meaning that consumers perceive that they have more control through online shopping than in-store, which is in accordance with the results of Tanskanen et al. (2002), Burgess (2003), and Mohan et al. (2013). Finally, the results allowed us to conclude that the better consumers perceive the online grocery shopping process as fast, the higher will be their intention to perform it. This is in accordance with the results of Van der Heijden & Verhagen (2004) in their study. However, the learning process of shopping groceries online is a constraint because it takes time for consumers to understand and get used to

the website, and this is why companies that sell online need to have a logic and easy to manage website, or consumer will drop their purchases.

From these results, the variable relative advantage does not have a significant relation with intention to shop groceries online, and therefore the fourth hypothesis generated is rejected (H4). Although some sub-variables have a significant relation, the overall variable does not, maybe because the Cronbach's Alpha achieved within the analysis was lower than the results achieved for the other variables, and also below the good interval of reliability.

The fifth independent variable included in this study is shopping orientation. The results showed that some consumers simply prefer to shop at the supermarket, purely because they value the shopping experience, as Rohm and Swaminathan (2004) and Ramus and Nielsen (2005) concluded in their studies. Therefore, those consumers do not intend to shop for groceries through an online system because it cannot offer them the same experience. The results showed that the less consumers prefer to shop at supermarkets, the more they intend to shop online, and the more they would probably do it on a regular basis, as Monsuwé et al. (2004) concluded. This happens because companies cannot replicate the shopping experience at a physical store into the online channel, and consumers who really value it, will not use the Internet to make their shops.

Additionally, the social interaction present on a trip to the supermarket to buy groceries is not present in the online shopping channel. The results also allowed estimating that some consumers value social interaction at a physical store, as Ramus and Nielsen (2005) concluded, and therefore, the higher consumers value social interaction, the lower is their intention of shopping groceries online. In this study, the lack of social interaction in the online channel acts as a barrier to online grocery shopping, like the

conclusions of several previous studies (Monswé et al. 2004; Ramus and Nielsen 2005). Finally, the results showed that the perceived complexity of the online grocery shopping process negatively influences consumers' intention to purchase groceries online, because the higher consumers perceive it to be complex, the lower is their intention to perform it; these results go along with several studies previously performed (Hansen 2005; Hansen 2006).

Hence, the higher is the propensity for a consumer to be shopping oriented, the lower is his/her intention to perform online grocery shopping, endorsing and accepting the final hypothesis build within this study (*H5*).

Taking into consideration the respondents who have already purchased groceries online, the results demonstrated that the most bought products are packaged and others (detergents, hygienic products, etc.), against a low percentage of fresh and frozen products. These results go in accordance with the studies of Ramus and Nielsen (2005) and Jiang et al. (2013) who concluded that consumers perceive a certain degree of risk when purchasing fresh and frozen products online because their quality could be compromised, firstly because the selection of the first will be done by employees and not by themselves (the consumer can prefer more mature fruit, and the employee do not), and secondly due to the delivery time and transportation of both types of products that, if not managed carefully, could damage the products and decrease their quality.

Additionally, the majority of shoppers prefer to buy known brands, and/or brands that are in promotion, and only a low percentage are willing to buy new and unknown brands. This goes along with the results of Kau et al. (2003) and Monswé et al. (2004), who concluded that online shoppers prefer to buy already known brands due to the possible risk they may face, such as lower quality than expected, if purchasing unknown

brands. Finally, consumers feel that more and better promotions is the key factor that can add value to online grocery shopping and make them more willing to purchase through the Internet. Considering the financial instability present in Portugal, consumers want to save some money regarding their groceries, and therefore this would be a valuable factor that companies can use to increase online grocery shopping.

Additionally, the second most voted factor is the need of an easier website for purchasing groceries. This goes along with the results of Tanskanen et al. (2002) and Chu et al. (2010), who concluded that, since it takes some time to learn how to shop within a certain website, the easier it is, the more consumers will intend to shop in it. Therefore, if companies invest in creating a easier and more logical website, consumers will be more willing to make their shopping through it, otherwise they will waste more time in learning and completing the purchase than in actually going to the store. Furthermore, a faster delivery is also a requirement for some consumers. This is in accordance with Jiang et al. (2013) who concluded that a late delivery will make customers dissatisfied and not being willing to make further online purchases. Additionally, the quality of the products delivered can also be diminished if the delivery is late, as mentioned previously.

On the other hand, Nunan (2014) concluded that the introduction of optional game elements within the website will improve consumer engagement. However, the results showed that consumers do not perceive that this will add value to online grocery shopping. One explanation is that, grocery shopping is a mandatory task since people need to buy groceries to live, and therefore, they perceive it as a common and needed activity, so they are not looking for it to be fun, maybe they prefer it to be more simple and time saving.

6. Conclusions

Online grocery shopping has been present in several countries for some years however, in Portugal, it is now starting to increase its importance. Some consumers have already shopped for groceries online, however only a few are doing it frequently. Perceived risk of shopping online, is the factor that makes consumers more reluctant regarding it – lack of trust in the online security system, mistrust of quality of products delivered and setbacks within the return process, are highly important issues for Portuguese consumers. On the other hand, a great percentage of consumers can perceive the convenience of online shopping when comparing with in-store shopping – being able to shop 24/7, saving time in dislocations and no need to spend physical effort are three valuable characteristics of online grocery shopping.

Companies within this industry should focus in decreasing the perceived risk of online shopping by repeatedly insuring their customers of the high control and good security level of the system, and reimbursing for any issue that may occur. Furthermore, companies should also make sure that their website is easy and logical to use and increase the number and the level of promotions online, in order to attract more customers to make online shopping rather than going to the store.

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8. Appendix

8.1 Survey

Digital platforms to perform grocery shopping

This survey supports the performance of a work project of a master student at Nova SBE. It is ensured the anonymity of all the participants, and the information collected will be uniquely used for the purpose of this project.

Thank you for you time

1. Do you shop for groceries online?

- ☐ Yes, I do
- ☐ No, but I intend to
- ☐ No, neither intend to do it

(if you answered “yes, I do” continue to question 2, if you answered “No, but I intend to” and “No, neither intend to do it” go straight to question 5)

2. How often do you shop groceries online?

- ☐ Once
- ☐ Rarely
- ☐ Frequently
- ☐ Always

3. Which type of products do you buy online? Select all the options that you consider

- ☐ Fresh (fruit, vegetables, meat, fish, etc.)
- ☐ Packaged (pasta, rice, canned food, etc.)
- ☐ Frozen
- ☐ Detergents, hygiene products, cleaning, etc.

4. Which brands are you used to buy online? Select all the options that you consider

- ☐ The ones I already know and I am used to sbuy
- ☐ New brands that I would like to try

- ☐ Brands that are in promotion
- ☐ Others. Which ones? _____

5. Analyze the following statements taking into account your intention to shop groceries online:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
A. Doubt financial security while shopping online					
B. Providing personal information is risky					
C. Providing details of credit card is risky					
E. Product might not give assured result as promised in the website					
F. Replacement of the product is a big difficulty					

6. Analyze the following statements taking into account your intention to shop groceries online:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
A. OLS is available 24/7 which makes life comfortable					
B. OLS saves lot of time					
C. Delivery of the products at doorstep saves time and physical exertion					

7. Analyze the following statements taking into account your intention to shop groceries online:

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
A. Better price comparison in OLS					
B. Wider and better choice of products is available online					
C. Less impulsive purchases are made online than in store					
D. Compared to shopping in a physical retail store, OLS is much faster					

8. Analyze the following statements taking into account your intention to shop groceries online:

	No influence	Low influence	Moderate influence	Strong influence	Very strong influence
A. Preferred to shop in stores					
B. Found better prices in store					
C. Preferred to have social contact when shopping					
D. Internet shopping too complicated/difficult					

9. Which of the factors presented above do you think that can add value to online grocery shopping? Select all the options that you consider

- ☐ “Gamification” – having the possibility to play games within the shopping website
- ☐ More and better promotions
- ☐ Easier and more logical website
- ☐ Closer relationship with the customers (CRM)
- ☐ Faster delivery
- ☐ Other: _____

10. With only ONE word, please describe what online grocery shopping is for you:

For a better understanding of the respondent:

11. Gender

- ☐ Male
- ☐ Female

12. Age

- ☐ <18
- ☐ 18-21
- ☐ 22-25
- ☐ 26-35
- ☐ 36-45
- ☐ >45

13. Academic Degree:

- ☐ Basic school
- ☐ High school
- ☐ Technical course
- ☐ Bachelor Degree
- ☐ Master Degree
- ☐ MBA
- ☐ PhD

14. Activity:

- ☐ Student
- ☐ Employed
- ☐ Unemployed
- ☐ Retired

15. Monthly personal income:

- ☐ <500€
- ☐ 500€-999€
- ☐ 1000€ - 1999€
- ☐ 2000€ - 2999€
- ☐ >3000€

Thank you for you time!

8.2 Limitations of the study

Knowing that this research project was performed for the work project course of a master student, one major limitation was the time frame available for the delivery of the project. Having less than 4 months to conclude the research project, although it was done at full-time, denied the ability of making larger and deeper research regarding literature review, and the number of respondents of the survey was not as great as if more time was given; it would be recommended to have more time to perform this study. Furthermore, the number of questions present within the survey was little in comparison with regular surveys applied within this area of study, mainly due to time constraints as well, and therefore each variable should have more items to confirm its validity and importance.

Additionally, the constraint regarding the formatting of the document and the number of pages may have diminished the quality of the project itself because much more was left to say, knowing that the theme of this project is wide, interesting and present in consumers' lives; thus, there should not be a constraint regarding page limit, or have a larger one. Also, knowing that this was performed by a management student, the psychological core regarding intention was not deeply analyzed; a more specific approach should be made due to presents better results.

Finally, the SPSS analysis was performed by a management student, with the help of a specialized book and online research; hence, it would be recommended to perform the analysis by an expert on statistics and the program, in order to be able to achieve more proper results.